

Deriving Separable Verbs in Cantonese*

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Abstract

A number of Cantonese disyllabic verbs allow verbal suffixes to occupy an “infixal” position and they are known as *separable verbs*. Notably, separable verbs are not only observed with verb-object (VO) type verbs but also non-VO type and monomorphemic verbs in Cantonese. In this paper, we argue against a prevailing reanalysis account on separable verbs. Empirically, we observe that the second syllable of separable verbs in Cantonese systematically lacks nominal properties. Also, the reanalysis approach faces conceptual difficulties when applying to non-VO and monomorphemic verbs. We propose a novel PF deletion account. Substantially, the apparent separation is a combined result of a Syllable Deletion rule triggered by affixes, and (partial) Copy Deletion. This account naturally extends to capture other discontinuous constructions such as V-one-V construction and A-not-A formation.

Key words

Separable verbs, syllable deletion, reanalysis, affixes, Cantonese

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1. Introduction

Disyllabic verbs in Cantonese can optionally appear in a discontinuous form when taking verbal suffixes (Chan and Cheung 2020). Particularly, the suffix can intervene between the two syllables, exemplified in the last column in Table 1. We refer to these verbs as *separable verbs*.

Table 1. Various types of disyllabic verbs and suffix intervention

| Example | Literal meaning | Type | Suffixation | Intervention |
|----------------------------------|-----------------|---------|--|---|
| a. daam-saam ‘worry’ | bear + heart | V-O | daam-saam- gwo | daam- gwo -saam |
| b. jing-jan ‘photocopy’ | reflect + print | V-V | jing-jan- zo | jing- zo -jan |
| c. laai-coeng ‘pull to lengthen’ | pull + long | V-Rslt. | laai-coeng- faan | laai- faan -coeng |
| d. zi-sau ‘confess’ | self + inform | Mdf.-V | zi-sau- maai | zi- maai -sau |
| e. jat-sik ‘(solar) eclipse’ | sun + erode | S-V | jat-sik- jyun | jat- jyun -sik |

While the verb-object (VO) type is also commonly attested in Mandarin (Chao 1968, Huang 1984), other types appear to be less productive when compared to Cantonese. Furthermore, suffix intervention in Cantonese is not limited to morpheme boundary; it can occur at syllable boundary in cases of monomorphemic disyllabic verbs:

(1) Monomorphemic verbs and intervening suffixes

- | | |
|--|---|
| <p>a. Aaming feilou-zo/ fei<zo>lou Ming fail-PERF/ fail<PERF> ‘Ming failed.’</p> <p>b. Aaming dou oukei-maai/ou<maai>kei Ming also okay-ADD/ okay<ADD> ‘Ming also (said) okay.’</p> <p>c. Aaming feweu-gan/ fe<gan>wu Ming farewell-PROG/ farewell <PROG> ‘Ming is having a farewell.’</p> | <p>d. Aaming seifu-zo/ sei<zo>fu Ming save-PERF/ save<PERF> ‘Ming saved (the file).’</p> <p>e. Aaming baaibaai-zo/ baai<zo>baai Ming bye.bye-PERF/ bye.bye<PERF> ‘Ming (said) bye-bye/ Ming died.’</p> <p>f. Aaming mou sowi-gwo/ so<gwo>wi Ming not sorry-EXP/ sorry<EXP> ‘Ming didn’t (say) sorry.’</p> |
|--|---|

In addition to suffixes, separable verbs allow intervention by duration or frequency phrases:

- | | |
|--|--|
| <p>(2) a. Aaming so<zo><seng-m-fanzung>wi Ming fail<EXP><ten.several-time> ‘Ming failed a dozen times before.’</p> | <p>b. Aaming fei<gwo><sapei-ci>lou Ming sorry<PERF><whole-5-mins> Ming apologizes for as long as 5 minutes.’</p> |
|--|--|

Given the considerable productivity and systematicity of separable verbs, this paper focuses on how they are sanctioned and derived in the grammar. We first argue that a VO-reanalysis account (Chao 1968, Huang 1984, Packard 2000, *i.a.*) is not tenable, at least in Cantonese. We motivate an account that makes no reference to the morphological structure. Particularly, we suggest that separable verbs are resulted from three independent operations:

(3) Deriving separable verbs

- (i) Syntactic verb movement to affixes creates copies (Chomsky 1995, Nunes 1995);
- (ii) Post-syntactically, affixes trigger a syllable deletion rule on their host;

(iii) Copy Deletion erases the complement part of the lower copy (i.e. partial deletion).

The rest of the paper is organized as follows. In section 2, we discuss more properties of separable verbs in Cantonese. Then we turn to previous approaches to separable verbs in section 3. In section 4, we detail our proposal and we conclude in section 5.

Before we start, we should remark that the VO type separable verbs are sometimes conflated with (transitive) VO phrases. Here, we adopt an operational definition in (4) to distinguish compound verbs from verb phrases. In effect, VO strings with a cognate object like *fan gaau* ‘sleep, (lit.) sleep nap’ or a semantically bleached object like *sik faan* ‘eat, (lit.) eat rice’ that do not allow suffixation (i.e. *VO-suffix) are regarded as phrases. These cases do *not* count as separable verbs.

(4) Operational definition of compound verbs and VO phrases

(Compound) verbs can be followed by a suffix, but verb phrases cannot

- | | |
|--|--|
| (5) fan -zo gaau / * fan gaau -zo sleep-PERF nap sleep nap-PERF ‘slept, (lit.) slept a nap’ | (6) sik -gan faan / * sik faan -gan eat-PROG rice eat rice-PROG Eating, (lit.) eating rice’ |
|--|--|

2. Properties of separable verbs in Cantonese

2.1 Idiosyncrasies

Separable verbs display various idiosyncratic properties. First, they are mostly disyllabic verbs. Separable trisyllabic verbs are rare and show remarkable speaker variations, e.g. loanword *homofis* ‘home office, i.e. work from home’ separated as *hom<gan>ofis* ‘working from home’.

Second, the choice of roots significantly affects the possibility of separation. Although VO compounds are traditionally considered more separable, Chan and Cheung (2020) found that only 62% of them have the separated form. Surprisingly, a considerable number of verbs with other morphological structure can also be separated, 29% for non-VO compounds (Chan and Cheung 2020) and 40% (24 out of 60 in this study) for monomorphemic verbs. This finding suggests that separation depends largely on specific roots whereas morphological structure (i.e. having a VO internal structure or not) is not a deciding factor.

Third, the choice of suffixes also plays a crucial role in separation, which is less discussed until recently in Chan and Cheung (2020). For example, among the two epistemic suffixes *ngaang* and *gang* (S.-W. Tang 2003), separable verbs are more acceptable with the former than the latter as shown in (7). Among 24 suffixes examined in this study, we observe that they form a continuum in terms of separability, which may be roughly divided into three groups as shown in Figure 1.¹

- | | |
|--|---|
| (7) a. Keoi fei <ngaang> lou . 3SG fail<MUST> He must fail.’ | b. ??Keoi fei <gang> lou . 3SG fail<MUST> Int.: ‘He must fail.’ |
|--|---|

¹ Separability is measured by mean acceptability scores (on a scale of 1-5) of 60 verbs by 3 annotators.

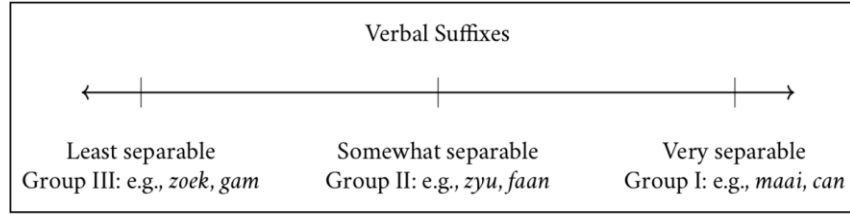


Figure 1: Continuum of Cantonese verbal suffixes

2.2 The second syllable and the lack of nominal properties

While the possibility of separation is subject to idiosyncrasies, *admissible* separable verbs exhibit remarkably *systematic* properties. Below, we demonstrate the systematicity by examining whether the second syllable of a separable verb (henceforth the 2nd syllable) displays nominal properties through tests of relativization, object fronting and nominal modification.

First consider relativization. The 2nd syllable, unlike a genuine object, cannot be relativized as the head noun of a relative clause. Note that even cognate objects may undergo relativization, suggesting that the ungrammaticality of (8a) is not due to the lack of thematic role of *-wi*.

- (8) a. *Ni go zau hai [keoi so-zo] ge wi. (separable verb)
 this CL then be 3SG sorry- PERF MOD sorry
 Int.: ‘This is the apology that he made.’
 b. [Keoi fan_] ge gaau hai battungfaanhoeng-dei coeng. (V+cognate object)
 3SG sleep MOD nap be extraordinary-ly long
 Lit.: ‘The nap that she sleeps is extraordinarily long.’

Then consider object fronting. The 2nd syllable cannot be fronted by cleft focus marker *hai* ‘be’:

- (9) *Hai lou Aaming m-soeng fei zaa.
 be fail Ming NEG-want fail SFP
 Int.: ‘It is (only) fail(ure) that Ming doesn’t want (but not something else).’

One often-cited evidence for the nominal nature of the 2nd syllable comes from the *lin* ‘even’-focus construction, where the second syllable may be fronted as in (10). However, there is a crucial difference between *lin* ‘even’ and *hai* ‘be’ constructions, namely, only *lin* but not *hai* may target a verb (=0). Hence, (10) may alternatively be taken as an instance of verb movement (with phonologically reduced pronunciation) and thus does not necessarily support the existence of nominal properties. We will return to the *lin*-focus construction in §4.2.

- (10) Lin wi Aaming dou mou so
 even sorry Ming also NEG sorry
 ‘Ming even didn’t say sorry.’

- (11) a. Lin sik Aaming dou m-soeng sik b. *Hai sik Aaming m-soeng sik zaa
 even eat Ming also NEG eat be eat Ming NEG-want eat SFP
 ‘Ming even didn’t eat.’ Int.: ‘It’s only eating that M. doesn’t want.’

Finally, the 2nd syllable resists nominal modification. It cannot be preceded by individual

classifiers and numerals, which would be possible for thematic and cognate objects respectively.

- (12) a. *Keoi coet<zo><saam **go/bun**>baan. b. *keoi so<zo><**jat**>wi.
 3SG publish<PERF><three CL> 3SG sorry<PERF><one>
 Int.: ‘He published three books.’ Int.: ‘He (said) sorry once.’

The 2nd syllable also cannot be preceded by adnominal modification marker *ge* in (13). Note that the sentence would have been grammatical if *ge* is removed, suggesting that the oddness of (13) solely comes from the lack of nominal properties of *-wi* but not semantic factors.

- (13) Nei jiu **so**<faan><saam-ci (***ge**)>**wi** ngo sin wui jyunloeng nei
 2SG must sorry<AGAIN><three-time MOD> 1SG then will forgive 2SG
 ‘You have to (say) sorry three times (and) then I will forgive you.’

To summarize this section, the second syllable of Cantonese separable verbs systemically lacks nominal properties in all the tests: relativization, object fronting, and nominal modification. This leads us to the conclusion that the second syllable retains a verbal status in Cantonese.

Before proceeding to the discussion on reanalysis, it is instructive to note the object-taking ability of separable verbs. A number of them are transitive verbs that may take a thematic object even after separation, as shown in (14). Note that a phonologically longer (post-verbal) object may further improve the sentence, as in (14).

- (14) a. Keoizoeng [nei fan je] **jingjan**-zo/ **jing**<zo>**jan** laa. (pre-verbal object)
 3SG DISP this CL thing photocopy-PERF photocopy<PERF>SFP
 ‘He made a photocopy of this document.’
 b. **Fongdaai**-faan/ **fong**<faan>**daai** [di janngau] (post-verbal object)²
 enlarge-AGAIN enlarge<AGAIN> CL doll
 ‘enlarge the dolls again’
 c. Keoidei **ceot**<zo>**baan** [sap bun [?](hai waajyu saigaai hou jaujinghoenglik ge) siuseot].
 3PL publish<PERF> ten CL at Chinese world very have influence MOD novel
 ‘They published ten novels that are very influential in the Pan-Chinese communities.’

3. Previous reanalysis approaches in Mandarin

Previous studies in Mandarin often suggest that separable verbs have undergone *reanalysis* and become a VO phrase (Chao 1968, Huang 1984, Packard 2000, *i.a.*). In what follows, we first review the core arguments for reanalysis, and examine whether they apply to Cantonese. We then discuss different variants of reanalysis approaches and the empirical and conceptual challenges of each variant.

Under a reanalysis approach, the first syllable of a disyllabic verb is reanalyzed as a monosyllabic verb and the second syllable a nominal object, as illustrated with Cantonese below:

- (15) Illustrating the idea of reanalysis with the VO compound *ceotbaan* ‘publish, (lit.) out-plate’
 a. [v [v ceot [N baan]]] (regular verb without separation)
 b. [v [v ceot [N baan]]] → [vp [v ceot [NP baan]]] (with separation: reanalysis)

²This data point comes from an online forum (LIHKG forum 2021), accessed on April 9, 2021.

Variants of proposals differ in terms of the application level and the directionality of reanalysis, but they all share the idea that the second syllable of separable verbs behaves like a nominal.

This idea however is in contrary to the facts discussed in section 2: the second syllable of separable verbs, even for VO compounds (as *ceotbaan* ‘publish’ in (12)), systematically lacks nominal properties in Cantonese. Also, separable verbs may take a thematic object, including pre-verbal and post-verbal ones, which would be ungrammatical if the second syllable was reanalyzed as an object. We therefore suggest that a reanalysis approach to separable verbs in Cantonese is empirically untenable.

In addition, reanalysis approaches also face conceptual challenges. We specifically look into the level at which reanalysis applies and the directionality of reanalysis. Existing approaches can be classified into three groups:

(16) Variants of reanalysis approaches

a. *Reanalysis in the **lexicon*** (Packard 2000, Her 2010)

Head-to-phrase: [v [v ceot [N baan]] → [vp [v ceot [NP baan]]] (as idiomatic phrases)

b. *Reanalysis in the **syntax*** (Chao 1968, T.-C. Tang 1997)

Head-to-phrase: [v [v ceot [N baan]] → [vp [v ceot [NP baan]]]

c. *Reanalysis of phrases into compounds (**lexicalization**) in the **syntax*** (Huang 1984)

Phrase-to-head: [vp [v ceot [NP baan]] → [v [v ceot [N baan]]]

The first variant suggests that the application of reanalysis relies on a semantic basis.³ It posits that the two morphemes of a compound verb, with a predicate-theme like reading, may be coerced into a phrasal VO structure and listed separately in the lexicon as idiomatic phrases (Packard 2000, Her 2010).

While the coercion seems reasonable for VO compounds, questions arise as to why verbs without a plausible semantic basis for reanalysis can also be separated, such as non-VO compounds like *zisau* ‘turn oneself in, (lit.) self-report’ (Modifier-Verb) and monomorphemic verbs like *feilou* ‘fail’. This kind of reanalysis needs to be quite “deep” in order to ignore/overwrite the original categorical status of the morpheme. Moreover, if a separable verb was listed dually in the lexicon as two items, we may expect them to differ in meaning. However, no interpretive difference is detected with/without separation. Indeed, both literal and idiomatic meanings of a separable verb are accessible regardless of separation, as shown by loanword *baaibaai* ‘bye’, whose idiomatic meaning ‘die’ emerged after the borrowing from English into Cantonese:

(17) a. Keoi **baaibaai**-zo

3SG bye-PERF

Lit.: ‘He said bye.’ / Idio.: ‘He died.’

b. Keoi **baai**<zo>**baai**

3SG bye<PERF>

Lit.: ‘He said bye.’ / Idio.: ‘He died.’

The second variant suggests that reanalysis occurs at a relatively “shallow” level of grammar, i.e. syntax (Chao 1968, T.-C. Tang 1997). This approach overcomes the problem of meaning preservation after separation since there is only one entry of a separable verb in the lexicon. This approach may also avoid the problem raised by non-VO compounds and monomorphemic verbs, if we follow Chao’s (1968) proposal that reanalysis can be based on prosodic properties.

³ The boundness of a morpheme may also play a limited role (Packard 2000).

Specifically, he proposes that Mandarin verbs with an iambic (i.e. Weak-Strong) stress pattern like *youmo* ‘make a joke’ may be reanalyzed as a VO phrase which also have an iambic stress pattern. Notably, *youmo* is a monomorphemic verb borrowed from English *humor*.

However, this reasoning cannot be carried over to Cantonese, because separable verbs like *sowi* ‘sorry’ does have a trochaic (i.e. Strong-Weak) stress pattern. Furthermore, that reanalysis applies in (narrow) syntax raises non-trivial concerns. For example, reanalysis in effect produces an additional structure by “splitting” a head node V into two nodes, i.e. a V node and an NP node. The newly-introduced NP node, which is crucial to account for the separation, violates a fundamental principle in the Minimalist Program, namely Inclusiveness Condition (Chomsky 1995, 2001). It dictates that no new element, including structural labels like the NP node added by reanalysis, can be introduced in the course of syntactic derivation. An additional accessibility issue concerns how narrow syntax can access prosodic information (which should only be available post-syntactically in the Phonological Form (PF)).

The third variant advocated by Huang (1984) represents an opposite direction of reanalysis. It suggests that all the separable verbs are “born” as idiomatic VO phrases in the lexicon which may be *lexicalized* into a compound verb. Formally, a VP phrasal node ($[_{VP} V NP]$) is reanalyzed into a V^0 head node in the syntax. No extra structure is added, rather, an NP node is erased.

Although this approach circumvents the theoretical problems encountered in the second approach, it shares a conceptual problem with the first approach as to why non-VO compounds and monomorphemic verbs are listed as VO phrases in the lexicon. In particular, why would loanwords like *feilou* ‘fail’, whose source word *fail* is a genuine verb in the English lexicon, be understood and listed as a VO phrase in the Cantonese lexicon?⁴ Based on these considerations, we conclude that the third variant is untenable in Cantonese as well.

To summarize, a reanalysis approach falls short of explaining the separable verbs in Cantonese. In the next section, we propose a novel account that captures the empirical properties and at the same time avoids the conceptual problems of the reanalysis approach.

4. Proposal

4.1 Syllable Deletion and partial Copy Deletion

Rather than reanalyzing the second syllable as a nominal object, we suggest that it retains the verbal status. To capture this intuition, we first assume with S.-W. Tang (1998, 2003) that affixes host a syntactic head which attracts verb movement. Under the copy theory of movement (Chomsky 1995, Nunes 1995, Bošković and Nunes 2007), verb movement creates two copies in the landing and launching sites, resulting in two *verb* copies in *distinct syntactic positions*.

The key ingredient of our proposal is that we propose an optional Syllable Deletion rule triggered by affixes in PF, allowing deletion on their host:

(18) Affix-induced Syllable Deletion

Affixes optionally trigger deletion on an adjacent syllable of their hosts.

Also, we suggest that Copy Deletion, which generally targets on the lower copy, may apply in a *partial* fashion and only erase the complement part to the higher copy. A schematic derivation is given in (19), where AB represent a disyllabic verb and -x a suffix. Deleted elements are shaded.

⁴ Also note that there is no semantic nor prosodic basis for listing as VO phrases, since the source word *fail* is both monomorphemic and monosyllabic.

(19) A schematic derivation of separable verbs with suffixes

- | | |
|-----------------------------|---|
| a. [-x [AB]] | (base structure) |
| b. [<AB>-x [<AB>]] | (verb movement) |
| c. [<AB>-x [<AB>]] = A-x-AB | (Syllable Deletion induced by a <i>suffix</i>) |
| d. [<AB>-x [<AB>]] = A-x-B | (partial Copy Deletion) |

For phrasal elements like duration phrases (cf. (2)), we suggest that they are sandwiched between the functional head hosted by a suffix (e.g. Aspect) and the VP. Hence, they may intervene between the two verb copies and result in an A-x-XP-B string.

This proposal captures the lack of nominal properties of the second syllable (=B) by retaining the verbal status of the lower copy in syntax. Crucially, all the verbs are base-generated at V head and may undergo verb movement, regardless of their morphological structure. Hence, separation is not limited to VO compounds, but can be found in non-VO compounds and monomorphemic verbs as well.⁵

4.2 Further evidence for Syllable Deletion

This subsection offers two pieces of additional evidence for the proposed Syllable Deletion rule in (18). First, recall that *lin* ‘even’-focus construction allows the second syllable of separable verbs to be fronted as in (20).

(20) (Apparent) fronting of the second syllable

- | | |
|---|---|
| a. Lin -wi Aaming dou mou so even sorry Ming also NEG sorry ‘Ming even didn’t say sorry.’ | b. Lin -sau keoi dou zi -maai Even confess 3SG also confess-ADD ‘He even also turned himself in.’ |
|---|---|

We have argued in §2.2 that this apparent fronting is not necessarily a case of *object* fronting, since *lin*- may target a verb. We further suggest that the apparent fronting is the result of verb movement followed by Syllable Deletion and partial Copy Deletion. *Lin*- ‘even’ first attracts the verb to move to a focus position and creates two copies. Observe that the two copies may be spelled out, leading to verb doubling (Cheng and Vicente 2013, Lee 2021):

(21) (Full) verb doubling

- | | |
|--|---|
| a. Lin sowi Aaming dou mou sowi even sorry Ming also NEG sorry ‘Ming even didn’t say sorry.’ | b. Lin zisau keoi dou zisau -maai Even confess 3SG also confess-ADD ‘He even also turned himself in.’ |
|--|---|

Next, *lin*- deletes the adjacent syllable in the higher copy by Syllable Deletion in (18). Crucially, its application is sensitive to affix types. Particularly, since *lin*- is *prefixal*, it is syllable A instead of B that is deleted, mirroring the cases with suffixes. Partial Copy Deletion then erases the complement syllable B in the lower copy, delivering the surface string *lin*-B...A. The derivation is schematized below.

⁵ Pan and Ye (2015) also propose an account based on deletion. Yet, their proposal differs from our proposal in several crucial aspects: (i) whether the 2nd syllable is a (cognate) object; (ii) the level at which copying occurs (syntax vs. pre-syntactic numeration); and (iii) the deletion mechanism (PF rule vs. headedness requirement).

(22) A schematic derivation of apparent fronting in *lin* ‘even’-focus constructions

- a. [VP ...[AB]...] (base structure)
 b. *lin*-<AB> ... [VP ...[<AB>]...] (verb fronting for focus)
 c. *lin*-<AB> ... [VP ...[<AB>]...] (Syllable Deletion induced by a *prefix*)
 d. *lin*-<AB> ... [VP ...[<AB>]...] (partial Copy Deletion)

Furthermore, the following two cases show that Syllable Deletion can extend to cases other than separable verbs. Notably, it can be applied independently of Copy Deletion. First, as noted in Lam (2020), when disyllabic verbs occur in V-one-V constructions, the first verb occurrence is always reduced, forming the string A-one-AB. Notably, even monomorphemic verbs may be reduced:

- (23) **so(*wi)-jat-sowi** m-sai sei ge (A-one-AB)
 sorry-one-sorry NEG-need die SFP
 ‘It won’t hurt to say sorry.’

In (23), only the syllable before *jat* ‘one’ is deleted, and the second verb occurrence remains intact. This constitutes a case where Syllable Deletion occurs without (partial) Copy Deletion.⁶

Second, A-not-A formation in Cantonese also displays a similar A-not-AB pattern, again showing the independent need for Syllable Deletion. Remarkably, Mandarin differs from Cantonese in allowing AB-not-AB strings:

- (24) a. nei **ceot(??baan)-m-ceotbaan** ni bun syu? (A-not-AB in Cantonese)
 2SG publish-NEG-publish this CL book
 b. nei **chu(ban)-bu-chuban** zhe ben shu? (AB-not-AB in Mandarin)
 2SG publish-NEG-publish this CL book
 (a-b): ‘Will you publish this book?’

We tentatively suggest that the variation may be captured by positing that Syllable Deletion is obligatory in Cantonese A-not-A formation but optional in Mandarin A-not-A formation.

5. Concluding remarks

In this paper, we have argued against a reanalysis approach on separable verbs. Instead, we adopted a PF approach and motivated a Syllable deletion rule in Cantonese. Our proposal captures the lack of nominal properties of the 2nd syllable of a separable verb. By making no reference to the morphological structure of separable verbs, our approach also explains why separation is observed with not only VO-type (disyllabic) verbs, but also non-VO-type and monomorphemic verbs. Finally, we argued that the proposed Syllable Deletion rule has a wider empirical coverage as it extends to cases of discontinuous verbs observed in other constructions, including *lin*- ‘even’ focus constructions, V-one-V reduplication and A-not-A formation.

⁶ We suggest that *jat* ‘one’ is suffixal. Evidence comes from the alternation of *mong6-jat1-mong6* ‘see-one-see’ and *mong2-mong6* ‘see-see’, where *jat* ‘one’ may be contracted with the first verb occurrence, resulting in tone sandhi (low level T6 + high level T1 → high rising T2). To explain why the second verb occurrence remains intact, recall that Copy Deletion only applies on a movement chain. Following Lam (2020), the first verb occurrence in V-one-V constructions is copied by a reduplicant morpheme RED. Hence, the two As in the string A-one-AB are not created via syntactic movement and Copy Deletion does not apply.

We however have to admit that the current proposal is intended to derive *admissible* separable verbs in a systematic way. It does not immediately provide a satisfactory account on the idiosyncratic properties discussed in §2. One way to accommodate the idiosyncratic properties is to suggest that the application of Syllable Deletion is root-sensitive (a common property of morphological rules), i.e. some roots can never be targeted by Syllable Deletion. On the other hand, since suffixes are the trigger of Syllable Deletion, they may display different “preferences” when applying Syllable Deletion, i.e. deletion is not entirely optional and suffixes may come with different specifications. We must, however, await a separate occasion to further substantiate these claims.

References

- Bošković, Željko and Jairo Nunes. (2007) The Copy Theory of Movement: A View from PF. In Jairo Nunes and Norbert Hornstein (eds.), *The Copy Theory of Movement (Linguistics Today 107)*. 13–74. Oxford: Blackwell Publishers.
- Chan, Sheila S. L. and Lawrence Y. L. Cheung. (2020) Morpho-Syntax of Non-VO Separable Compound Verbs in Cantonese. *Studies in Chinese Linguistics* 41.2, 185–206.
- Chao, Yuen Ren. (1968) *A Grammar of Spoken Chinese*. Berkeley: University of California Press.
- Cheng, Lisa Lai-Shen and Luis Vicente. (2013) Verb Doubling in Mandarin Chinese. *Journal of East Asian Linguistics* 22.1, 1–37.
- Chomsky, Noam. (1995) *The Minimalist Program*. Cambridge, MA: MIT Press.
- Chomsky, Noam. (2001) Derivation by Phase. In Michael Kenstowicz (ed.), *Ken Hale: A Life in Linguistics*. 1–52. Cambridge, MA: MIT Press.
- Her, One Soon. (2010) *Interaction and Variation in the Chinese VO Construction*. Taiwan: Crane Publishing Co., Ltd.
- Huang, C. T. James. (1984) Phrase Structure, Lexical Integrity, and Chinese Compounds. *Journal of the Chinese Language Teachers Association* 19.2, 53–78.
- Lam, Charles. (2020) The V-one-V Construction and Modification of the Verbal Domain in Cantonese. *Studies in Chinese Linguistics* 41.2, 161–184.
- Lee, Tommy Tsz-Ming. (2021) Asymmetries in Doubling and Cyclic Linearization. *Journal of East Asian Linguistics* 30, 109–139.
- Nunes, Jairo. (1995) *The Copy Theory of Movement and Linearization of Chains in the Minimalist Program*. Doctoral dissertation, University of Maryland.
- Packard, Jerome Lee. (2000) *The Morphology of Chinese: A Linguistic and Cognitive Approach*. Cambridge: Cambridge University Press.
- Pan, Haihua (潘海華) and Kuang Ye (葉狂). (2015) Liheci he Tongyuan Binyu Jiegou (離合詞和同源賓語結構) [Separable Words and Cognate Objects in Mandarin Chinese]. *Dangdai Yuyanxue* (當代語言學) [Contemporary Linguistics] 17.3, 304–319.
- Tang, Sze-Wing. (1998) Parametrization of Features in Syntax. Doctoral dissertation, University of California, Irvine.

- Tang, Sze-Wing. (2003) Properties of *Ngaang* and the Syntax of Verbal Particles in Cantonese. *Journal of Chinese Linguistics* 31.2, 245–69.
- Tang, Ting-chi (湯廷池). (1997) Hanyu Yufa de Pinru Xianxiang (漢語語法的拼入現象) [Incorporation in Mandarin Grammar]. In Feng-fu Tsao (曹逢甫) and Kuang-cheng Hsi-tien (西楨光正) (eds), *Taiwan Xuezhe Hanyu Yanjiu Wenji: Yufapian* (台灣學者漢語研究文集：語法篇) [Mandarin Studies by Taiwan Scholars: Grammar]. 215-336. Tianjin: Tianjin Renmin Press (天津人民出版社).

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